



MIT.10059

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Soljacic et al.

GROUP: 2874

SERIAL NO: 10/726,454

EXAMINER: Unknown

FILED: 12/03/2003

FOR: USING ELECTRO-MAGNETICALLY INDUCED TRANSPARENCY IN  
PHOTONIC CRYSTAL CAVITIES TO OBTAIN HUGE NON-LINEAR  
EFFECTSMail Stop DD  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
Sir:INFORMATION DISCLOSURE STATEMENT

In compliance with 37 C.F.R. §§1.56, 1.97, and 1.98, Applicant submits copies of the documents listed on the attached Form PTO-1449.

The listed documents were recently cited in a corresponding PCT application, and a copy of the International Search Report is being submitted herewith for purposes of convenience.

The Commissioner is authorized to charge Deposit Order Account No. 19-0079 for any further fee that is required.

Respectfully submitted,

Matthew E. Connors  
Registration No. 33,298  
Gauthier & Connors, LLP  
225 Franklin Street, Suite 3300  
Boston, Massachusetts 02110  
Telephone: (617) 426-9180  
Extension: 112

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the Mail Stop DD, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

  
Emily Porell  
06/01/02004  
Date

FORM PTO-1449 SAMUELS, GAUTHIER & STEVENS LLP  
(Rev. 5/92) 225 Franklin Street, Boston, MA 02110  
Telephone: (617) 426-9180

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ATTORNEY DOCKET NO.

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

**U.S. PATENT DOCUMENTS**

| EXAMINER<br>INITIAL |    | DOCUMENT<br>NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE<br>IF APPROPRIATE |
|---------------------|----|--------------------|------|------|-------|----------|-------------------------------|
|                     | AA |                    |      |      |       |          |                               |
|                     | AB |                    |      |      |       |          |                               |

**FOREIGN PATENT DOCUMENTS**

| EXAMINER<br>INITIAL |    | DOCUMENT<br>NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION<br>YES NO |
|---------------------|----|--------------------|------|---------|-------|----------|-----------------------|
|                     | AC |                    |      |         |       |          |                       |
|                     | AD |                    |      |         |       |          |                       |
|                     | AE |                    |      |         |       |          |                       |

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

| EXAMINER<br>INITIAL |    |   |
|---------------------|----|---|
|                     | AF | "Self-Induced transparency and giant nonlinearity in doped photonic crystals," Kurizki et al. <i>J. Opt. Soc. Am. B</i> . September 2002. Vol. 19, No. 9. |
|                     | AG | "Enhancement of Phase Sensitivity by Exploring Slow Light in Photonic Crystals," Soljacic et al. <i>Proceedings of SPIE</i> . 2002. Vol. 4870.            |
|                     | AH | "Variable Semiconductor All-Optical Buffer," Ku et al. <i>Electronics Letters</i> . November 2002. Vol. 38, No. 24.                                       |
|                     | AI | "Si-based Photonic Crystals and Photonic-Band-Gap Waveguides," Notomi et al. <i>Proceedings of SPIE</i> . 2002. Vol. 4655.                                |
|                     | AJ | "Photonic Crystal Microcavities for Cavity Quantum Electrodynamics," Reese et al. <i>Proceedings of SPIE</i> . 2002. Vol. 4655.                           |
|                     | AK |   |
|                     | AL |   |
|                     | AM |   |
|                     | AN |   |

EXAMINER

DATE CONSIDERED

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**Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.**